

ENVIRONMENTAL ASSESSMENT  
Fisheries Division  
Montana Fish, Wildlife & Parks  
Nevada Creek Fish Screening

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP tentatively plans to provide partial funding toward the installment of a fish screen and headgate on an irrigation diversion. The overall goal is to eliminate fish entrainment, improve migration corridors for native migratory trout, and improve irrigation practices.

I. Location of Project:

This project will be conducted on Nevada Creek, located southeast of Helmville, MT within Township 12N, Range 10W, Section 4 in Powell County (Figure 1).

II. Need for the Project:

One goal within FWP's six-year operations plan for the fisheries program is to "protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure stewardship of native species." Nevada Creek in western Montana supports populations of Westslope Cutthroat Trout, which is federally recognized and a Species of Concern in Montana. The goal of this project is to prevent entrainment of all fish, but especially Westslope Cutthroat Trout, in an irrigation diversion. The project would also improve habitat for Rainbow and Brown Trout, two recreationally important species to the drainage.

III. Scope of the Project:

Nevada Creek is a tributary to the Blackfoot River and supports populations of Westslope Cutthroat Trout, Rainbow Trout, Brown Trout, and other non-game species. Many projects have been completed in the Nevada Creek drainage and this project is intended to continue the momentum and continue improving populations of native species. In the project area, the existing diversion has been a debris dam with logs, tarps, sandbags, and other materials that create a fish barrier during most flows. The diversion also creates a backwater effect on Nevada Creek and has resulted in an over-widened stream channel suffering from sediment deposition. The debris dam requires annual maintenance and there is no

headgate to allow for hydraulic control within the ditch.

This project would eliminate entrainment of trout with the fish screen installation (which allows diversion of between 2 and 15 cfs), install low maintenance headgate capable of providing hydraulic control and a sluice gate to minimize sediment, provide bed and bank stability through construction, and restore fish passage in the project reach (Figure 2). A grade control weir would be installed to allow diversion of water. The goal is to eliminate entrainment of trout down an irrigation diversion while providing fish passage and bed and bank stability within the stream channel. An FCA (Farmers Conservation Alliance) screen will be installed.

This project is expected to cost \$150,752. Of this total, the FFIP would be contributing an FCA fish screen purchased for a previous FFIP project (estimated \$50,000 value) to complete the project.

Contributor	In-kind services	In-kind cash
Landowner	\$3,100	\$10,000
Big Blackfoot Chapter of Trout Unlimited	\$3,855	\$38,797
USFWS Partners of Fish and Wildlife Service		\$45,000.00
TOTAL: \$100,752		

#### IV. Environmental Impact Review Checklist:

#### **Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment**

Project Title: Nevada Creek Fish Screening

Division/Bureau: Fisheries Division (FFIP)

Description of Project: Installation of a fish screen and head gate on an irrigation diversion

#### **A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT**

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture				X		
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)			X			X
4. Existing water right or reservation				X		X
5. Vegetation cover, quantity and quality				X		

6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species			X			X
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

## B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation				X		
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

## V. Explanation of Impacts to the Physical Environment

### 3. Water quantity, quality, and distribution.

No changes in streamflow would occur in Rock Creek as a result of the proposed project. Short-term increases in turbidity may occur during project construction. To minimize turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. A 318 authorization will be obtained, if necessary, to meet short-term water quality standards.

### 4. Existing water right or reservation.

Although this project will affect an irrigation diversion, it will not impact any existing water rights or reservations since the fish screen and headgate will be appropriately sized for the landowner's water right.

### 7. Terrestrial or aquatic life and/or habitats.

This project would stabilize the bank in the immediate reach of the diversion and restore part of the stream channel. Boulder cascades, vegetated wood matrix, and constructed riffles will be installed to stabilize banks as well as encourage proper stream function and create healthy aquatic and terrestrial habitat.

8. Unique, endangered, or fragile wildlife or fisheries species.

This project will benefit Westslope Cutthroat Trout, which is recognized as Species of Concern in Montana and is Federally Sensitive. The impacts on this species due to this project are predicted to be positive, potentially increasing recruitment and survival.

10. Changes to abundance or movement of species.

All age classes of salmonids that happen enter the irrigation diversion through the headgate would be screened and returned to the stream through a bypass pipe. This is expected to increase fish survival and abundance. The stream restoration will also improve channel habitat, enhancing migration corridors for Westslope Cutthroat Trout, as well as several other species of fish. Any change to abundance and survival is expected to be positive.

## VI. Explanation of Impacts to the Human Environment

8. Cultural and historic resources.

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of the project, and any potential concerns will be addressed.

## VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects.

## VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative.

If no funding is provided through the FFIP, either the applicant would have to seek additional sources of funding to complete the project, or no fish screen or headgate would be installed. Westslope Cutthroat Trout and other fishes would continue becoming entrained in the irrigation diversion.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to eliminate fish entrainment, improve migration corridors for native trout and improve irrigation practices

through the installation of a screen and headgate on an irrigation diversion.

IX. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

Montana Department of Environmental Quality  
North Powell Conservation District  
U.S. Army Corps of Engineers  
Montana Department of Natural Resources  
U.S. Fish & Wildlife Service

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

3. Is an EIS required?

No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish & Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all individuals and groups listed on the cover letter and will be published on the FWP webpage: [www.fwp.mt.gov](http://www.fwp.mt.gov).

5. Duration of comment period?

Public comment will be accepted through 11:59 PM, February 4<sup>th</sup> 2018.

6. Person(s) responsible for preparing the EA.

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# PROJECT VICINITY MAP

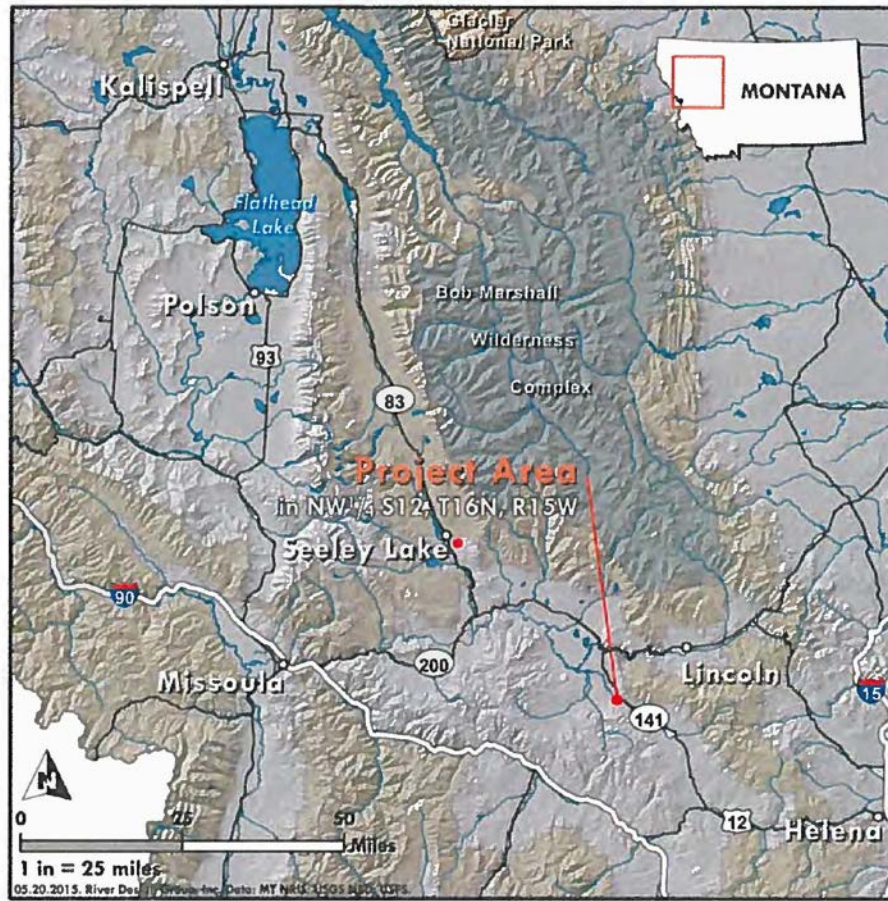


Figure 1: Project Location

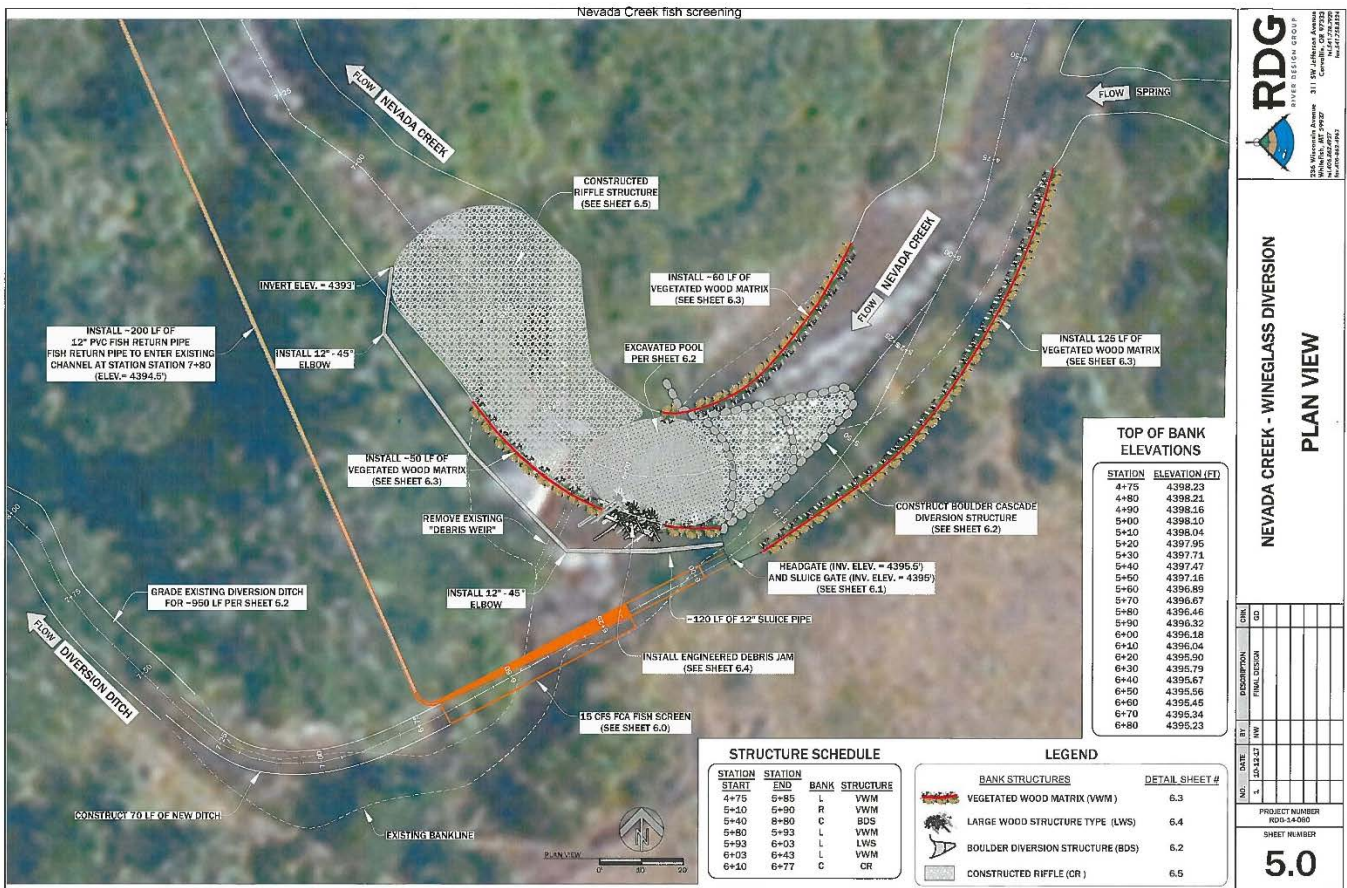


Figure 2: Plan View (Courtesy of River Design Group)